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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,582	10/09/2003	Kotesch Kummamuri Rao		2581

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ARLINGTON, VA 22203

EXAMINER

SERROU, ABDELALI

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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07/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/605,582	Applicant(s) RAO ET AL.	
	Examiner Abdelali Serrou	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action mailed on 3/24/08, applicant filed a corrected listing of the amended claims on 4/1/08. Claim 1 is amended. Claims 7-12 were previously canceled. Claims 1-6 are pending.

Response to Arguments

2. Applicant's arguments filed 12/27/07 have been fully considered but they are not persuasive.

Applicant argues that Makagon in view of Blum do not teach providing background noise suppression to reduce or substantially eliminate non-speech ambient background noise because there is no motivation or suggestion to modify or combine the Makagon and Blum references nor is there any reasonable expectation of success if the respective teachings of those reference were so combined. The examiner respectfully disagrees and points out that Makagon teaches a voice-responsive computing/communications device that provides speech recognition (col. 4, line 64 – col. 5, line 11) and Blum is from the same field of speech processing (Fig. 7, and col. 14, line 59 - col. 15, line 1-5). Makagon and Blum complete each other to teach all the claim's limitations as set in applicant's claims as presently amended. Makagon teaches all the limitations of claim 1, as stated in the rejection below. However, Makagon does not explicitly teach providing background noise suppression to reduce or substantially eliminate non-speech ambient background noise in high background noise environments where as much as 70 db or greater baseline non-speech ambient

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background noise may be present. For this matter, Blum teaches background noise suppression to reduce or substantially eliminate non-speech ambient background noise in high background noise environments where as much as 70 db or greater baseline non-speech ambient background noise may be present, see col. 8, lines 38-54, wherein noise suppression is performed in an environment where the noise is as much as 70 db or greater (very noisy, col. 8, lines 51-54). Hence, the success and the motivation of combining Blaum's feature of suppressing noise from speech signals in very noisy areas with the wireless communication system of Makagon is summarized in providing an improved method and apparatus for suppressing background noise in high background noise environments without significantly degrading the voice quality. Therefore, the combination of prior art used to reject claims 1-6 of the current application stands valid.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over makagon et al. (hereinafter, Makagon, U.S 7,222,301) in view of Blum et al. (hereinafter, Blum, U.S 6,982,649).

As per claim 1, Makagon teaches:

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an information processing system including an equipment controller and at least one fixed point wireless communications access station, the information processing system receiving and processing data or commands from one or more wireless communications access station relating to said machinery or equipment, and the controller controlling operation of the machinery or equipment in response to data or commands from the information processing system; and a voice-responsive computing/communications device (col. 4, line 64 – col. 5, line 11), said device providing speech recognition (recognizing speech input, col. 4, lines 6-7), wherein the voice responsive/communication device is in wireless communication with the information processing system via at least one fixed point wireless communications access station and is responsive to one or more vocal utterances of a user for communicating data to the information processing system and/or generating operational control commands to provide to the equipment controller for controlling said machinery or equipment (col. 4, line 64 – col. 5, line 22, especially col. 5, lines 11-22, wherein one or more utterances (speech) are communicated via wireless network to the central applications for recognizing the speech and generating VXML scripts and playing them as synthesized scripts media).

Makagon does not explicitly teach providing background noise suppression to reduce or substantially eliminate non-speech ambient background noise in high background noise environments where as much as 70 db or greater baseline non-speech ambient background noise may be present.

Blum in the same field of endeavor teaches providing background noise suppression to reduce or substantially eliminate non-speech ambient background noise in high background noise environments where as much as 70 db or greater baseline non-speech ambient

background noise may be present (col. 8, lines 38-54, wherein noise suppression is performed in an environment where the noise is as much as 70 db or greater (very noisy, col. 8, lines 51-54)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine Blum's noise suppressor with the system of Makagon, because this would enhance the sound quality and provide a better speech recognition.

As per claim 2, Makagon teaches wherein said information processing system comprises a local area network (LAN) (col. 9, lines 23-24).

As per claim 3, Makagon does not explicitly teach a directional microphone.

Blum in the same field of endeavor teaches a directional microphone (col. 8, lines 33-34).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine Blum's directional microphone with the voice-responsive computing/communications device of Makagon, because this would enhance the sound quality and provide a better speech recognition.

As per claim 4, Makagon teaches a wireless communications network (WLAN) that permits digital communications with at least one remote private network or computer facility (col. 5, lines 23-29).

As per claim 5, Makagon teaches wherein the wireless communication network comprises at least one antenna assembly having a transceiver system for transmitting and receiving signals from at least one wireless communications LAN access station (inherently

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disclosed for receiving wireless electromagnetic signals and processing communication information).

As per claim 6, Makagon teaches wherein said at least one remote private network or computer facility comprises a network server computer communicatively coupled to said voice-responsive computing/communications device via the wireless communications network, said server computer including a database for storing application data accessible by a user of said voice-responsive computing/communications device (col. 8, lines 24-43).

Conclusion

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments

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avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Abdelali Serrou/
Examiner, Art Unit 2626
6/27/08

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626